



## New Ops Lab System To Support Missions

The Marshall Center's Spacelab Mission Operations Control Center was busy in a visible way supporting the Microgravity Science Laboratory (MSL) mission earlier this month. Behind the scenes, Mission Operations Laboratory systems engineer Susan Best, test integration coordinator Doug Towne and a small team of engineers were also busy, testing and evaluating the "next generation" payload ground operations command and control system.

The first operational application of the system will be at the operations control center for the Advanced X-ray Astrophysics Facility in Cambridge, Mass., followed by its use in support of Space Station operations at Marshall's Payload Operations Integration Center and at remotely situated user facilities.

A UNIX-based server known as the Enhanced HOSC (Huntsville Operations Support Center) system, it will replace what is currently being used and provide state-of-the-art capabilities. Scientists and engineers will monitor payload experiments while using their own workstation that is designed to provide full telemetry processing features and command capabilities.

"What makes this system unique," said Best, "is the way it allows a user to modify a central data base for individual applications without affecting any one else on the system. The user can build displays to view real-time telemetry coming from the spacecraft, request playback, and request reports against time segments of logged data."

The system capabilities are accessible through a user-friendly graphics interface intended to reduce training requirements for ground controllers and experiment teams, according to Towne. The system also provides increased data-storage

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Marshall Center Associate Director Susan Smith accepts on behalf of the Center a special commemorative STS-84 mission memento from STS-84 astronauts. Pictured from left are Mission Specialist Jean-Francois Clervoy, Pilot Ellen Collins, Smith, Mission Commander Charles Precourt, and Mission Specialists Edward Lu and Carlos Noriega. Silver Snoopy Awards presented by the astronauts are on page 4.

## Next Mir Crew to Perform Internal Spacewalk

Top Russian space officials comprising the State Commission of Chief Designers met Monday and announced that the next crew of cosmonauts, Mir 24 commander Anatoly Solovyev and flight engineer Pavel Vinogradov, will perform an "internal spacewalk" into the depressurized Spektr module to relocate power cables from the three remaining undamaged solar arrays to the Core module batteries through a specially crafted hatch cover. They are scheduled to be launched on August 5th from the Baikonur Cosmodrome in Kazakstan with an arrival two days later on the Russian station.

Russian officials said that Mir 23 cosmonauts Vasily Tsibliev and Alexander Lazutkin are expected to return to Earth on August 14th, after the completion of a one week handover with Solovyev and Vinogradov.

The State Commission said the internal spacewalk into Spektr will occur no earlier

than August 20.

Meanwhile, systems aboard the Mir space station remain in good working order, and the cosmonauts, Tsibliev and Lazutkin, and U.S. astronaut Mike Foale, report that they are in good condition. Eight of Mir's 11 operational gyrodynes are back on line, allowing for automatic attitude control of the station.

The Mir batteries are also fully recharged, and onboard systems continue to be reactivated. The Vozdukh carbon dioxide scrubber is on but the Elektron oxygen generator remains off to conserve power. Oxygen is being provided for the Mir by the Progress resupply ship, which is attached to the Mir's Kvant-1 module docking port.

Foale is in his 10th week aboard the Mir. He is scheduled to be replaced by astronaut Wendy Lawrence in September following the docking of the Shuttle Atlantis on the STS-86 mission. He will return to Earth with Atlantis' astronauts.

# Project LIGHT Gets Report on Product Development Teams

The action team, established by Project LIGHT to develop a guidelines document for Product Development Teams (PDT) utilization at the Center, recently completed its work and presented its recommendations to the LIGHT Executive Steering Committee.

A PDT is a management-created team of selected knowledgeable and skilled people from various disciplines who perform the development and delivery of an integrated product or process. PDTs have proven to be an effective and efficient way to carry out concurrent engineering in industry.

The PDT Action team's goal was to develop a standard approach and common understanding of the PDT methodology as applied at the Center. In meeting this goal, the team conducted 95 face-to-face interviews with Marshall employees knowledgeable of PDTs. Additionally, the interviewees completed a questionnaire aimed at determining what areas of the PDT process were of most concern to them. Based on information received

from the interviews and questionnaires, the team identified three specific areas of concern: the formation and disbanding of teams in which employees may be collocated, the roles and responsibilities of team members and their management, and performance appraisal and awards/recognition for employees assigned to these teams.

Using the information gathered and working through the issues raised, the PDT action team developed a handbook for implementing PDTs and Project Coordination Teams (PCTs) at the Center. Recommendations made in the handbook include the establishment of a project review board, periodic peer reviews of all PDT or PCT activities, the need for PDT training, the experience requirements for members, and the need for regular face-to-face communications between parent organization supervisors and employees.

Center Director Dr. Wayne Littles thanked the PDT Action Team members for their efforts. The findings of the team clearly indicate the need for clarification

of organizational responsibilities across the Center. He went on to say that before we can fully respond to the team's recommendations, we must have a consistent understanding of what the projects do, of what our responsibilities are, and of the relationships among the projects, the chief engineers, the laboratories, etc. To this end, Littles will chair a small team to develop a set of top level principles related to responsibilities and relationships (interfaces). This team will use the reports of the PDT Team, the In-House Projects Team, and the Organizational Roles and Responsibilities Team as input for its work.

Members of the PDT action team were Bob Armstrong (PS03), Teresa Foley (GP22C), Randy Humphries (ED01), Bill Jones (EB52), Jim Linville (M-DI), Carolyn McMillan (Moderator, LA10), Jean Payne (CM41), Jean Rahyle (SA71), Jody Terek (EH43), Mike Watson (EO36), David Whitten (ED52) and Pete Rodriguez (Team Lead, EL01).

## Marshall Facilities Merge to Form Center Wellness Program

by Pat Mirandy

Are you aware that as a NASA employee, an eligible dependent of an employee or a NASA retiree, you are qualified for membership in a completely equipped, professionally staffed Fitness Center located in Building 4752, the NASA Exchange? On Nov. 1, 1996, the Marshall Center Occupational Health Program and the NASA Exchange Physical Exercise Facility merged their resources, resulting in a comprehensive Wellness Program. For Marshall employees, the fitness center, health education classes and related services are a complete benefit; the same options are open to retirees and dependents for a minimal fee. The only requirement to receive the services is to be approved for physical activity by the NASA Medical Center or a private physician. If employees have ever been approved by the Medical Center for the Marshall Physical Exercise Program, they may already be eligible to participate immediately. The program is not open to contractors at this time.

Research substantiates that a moderate amount of physical activity at least three times per week can improve health and provide life-extending benefits. It is recommended to start with a fitness evaluation by a qualified professional. The evaluation provides a good baseline to evaluate progress and includes a body fat check, cardiovascular, muscular strength, muscular endurance and flexibility assessment. The facility is open Monday thru

Friday from 5 a.m. to 7:30 p.m., and weekends and holidays from 7 a.m. to 5 p.m. During the fall and winter months, the facility remains open until 9 p.m. Monday through Friday.

Cardiovascular conditioning classes are offered on Mondays, Wednesdays and Fridays from 11:15-noon; and Tuesdays and Thursdays from 5 to 5:50 p.m. A strength training/toning class

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Showing off some of the physical exercise equipment are Terri Hassell, Bill Stease and Pat Mirandy (background).



# Beale Receives Top Scholarship for Athletes with Asthma

Christopher Beale, son of Marshall's deputy director of Procurement Steve Beale, has been named the Gold Award winner and will receive a \$10,000 scholarship in the Key Pharmaceutical's 13th annual "Will to Win" Asthma Athlete Scholarship Program.

Beale is one of 10 scholarship winners selected from over 3,600 entries across the country in the national competition for high school seniors with asthma. Beale was honored along with four silver award winners during a press conference and brunch on July 11 in New York City.

A National AAU Champion in the 55m hurdles, Beale set a National AAU record in the event this year. He is also a National AAU Champion in the Indoor Pentathlon, as well as an Alabama State Champion in both the 110m hurdles and long jump. Recently, Beale became the Alabama State Champion in the decathlon.

Beale's athletic achievements are matched by academics. He was ranked in the top third of his graduating class at Grissom High School, justifying him being selected for the \$10,000 award.

Beale plans to attend the University of Tennessee in the fall, major in business finance, attend law school and ultimately become a corporate lawyer. He also plans to continue his track career on the college level.

Beale says that with the help of his doctor, and the recommended medication, he can breathe easier and feel assured that his asthma is under control.

"My experience truly shows that with the right medication, one can lead an active, healthy life," he adds.

Sponsored by Key Pharmaceuticals, a division of Schering Corporation of Madison, N.J., the scholarship program was inaugurated to honor the athletic and academic achievements of



*Chris Beale is shown with Olympic Gold Medalist Amy Van Dyken. Van Dyken, who is a decorated athlete of the 1996 Olympic Games in swimming, has overcome severe asthma.*

students who have met the challenge of asthma, as well as to have them serve as an inspiration to other asthmatic youth.

## First ISO 9000 Audit Conducted

*by Linda Carpenter*

Mark Strickland and a team of auditors performed the first Marshall Center ISO 9000 audit June 23 - 27 at the Astrionics Laboratory. The first audit, according to Strickland, served as a real learning experience for the entire team, especially the auditors in training who accompanied the team. Although non-conformances were found, they were considered to be correctable and Jim Blanche of the Astrionics Laboratory and his staff have already started addressing the issues prior to receiving the formal report.

The audit also indicated that Marshall management is strongly supporting ISO 9000 implementation.

"One of the benefits of being the first organization at Marshall to be audited was that it pushed the group to create and complete the Organizational Work Instructions in a more timely manner," says Blanche. "The audit team performed in a professional and accommodating manner."

This week, EP Lab and EL Lab are scheduled for audit; CR and SA organizations are scheduled for July 28.

A copy of the ISO 9000 audit schedule and lessons learned from the EP audit are located on the ISO 9000 Homepage at Inside Marshall.

## NBS Get-Together Set for Aug. 1

The staff of the Neutral Buoyancy Simulator (NBS) invites all former NBS divers, staff members, and families to the Redstone Arsenal Civilian Recreation area Friday Aug. 1 at 4 p.m. Bring food, drinks and NBS photos and stories to share with everyone. For more information contact Paul Dumbacher at 4-3238.



*Peggy Frazier, ED52 (right), helps the 1996 Spacelab Aerospace Internship winner Erin Savner from Montgomery Blair High School in Silver Springs, Md., and her teacher Hoang Pham with composite panels for autoclave cure. Savner and Pham were hosted by the Education Programs Office as part of the Space Science Involvement Program. Also observing is Gail Gordon, EH33.*

# Marshall Center Employees Receive Silver Snoopy Awards

Members of the STS-84 Shuttle crew presented Silver Snoopy awards to Marshall Center employees last week. The awards were presented by Astronauts Eileen Collins and Carlos Noriega.

Photos by Emmett Given



Astronaut Carlos Noriega is pictured with Space Flight Awareness team award recipients Bob Neuschaefer, Dr. Sam Russell, Mike Suits, Lisa Hediger and Dr. Ron Beshears. (Not pictured is team member Billy Nerren)



Astronaut Eileen Collins presents Snoopy Award to Sherri Spotswood, EE25.



Collins with award recipient Diane Pearson, SA34.



Collins presents award to Richard Burt, SA52.



Collins with award recipient James Bishop, EL33.



# Center Employees Honored During Marshall's Awards Ceremonies



David Lehner, EB52  
NASA Exceptional  
Achievement Medal



Lott Brantley, PS05  
NASA Exceptional  
Service Medal



Olan Whitaker, PP04  
NASA Exceptional  
Service Medal



Samuel Clark, EH23  
NASA Exceptional  
Achievement Medal



Phyllis Olinger, CC01  
NASA Exceptional  
Achievement Medal



Deborah Stephens, CR90  
NASA Exceptional  
Achievement Medal



Barbara Turner, FA01  
NASA Exceptional  
Achievement Medal



William Myers, EP33  
MSFC Patent Award

Editor's Note: Photos of the above eight Honors Day Award recipients were omitted from last week's issue because the photos did not reach the Star by deadline time.

## Technology Transfer Study Awards Set for Three Small Businesses in Alabama

Four research proposals from three Alabama firms have been selected by NASA for negotiation of Phase I contracts in NASA's 1997 Small Business Technology Transfer Program. They are among 10 awards distributed by the Marshall Center and a total of 50 selected by NASA. Phase I determines the feasibility of the research. Alabama firms are United Applied Technologies Inc. and International Space Systems, both of Huntsville; and Nanotek Instruments Inc. of Opelika.

The 1997 Phase I solicitation closed on April 22, 1997. More than 200 separate proposals were submitted by small, high-technology businesses from all sections of

the United States.

All proposals were peer-reviewed for both technical merit and commercial potential. Selections were based on four evaluation criteria: scientific or technical merit and feasibility of the proposed cooperative research effort; experience and qualification of the small business concern; effectiveness of the proposed organization and plans for accomplishing the goals of the cooperative research; and commercial merit and feasibility of the proposed research.

The STTR program requires small business concerns to conduct cooperative research and development by partnering with a research institution.

## New Ops Lab System

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capacity and improves monitor and control features to help reduce the cost of mission operations.

"The design has backup capability and more elaborate displays geared toward a 'windows' or individual screen environment allowing the user to point with a mouse and click," added Towne. "The MSL-1 mission provided an opportunity to process a variety of telemetry in parallel with the current ground system. Marshall engineers now will be able to evaluate the system performance and responsiveness in a real-time mission environment as part of the ongoing system test and certification effort."

## Wellness Center

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(TNT) is provided on Mondays and Wednesdays from 5 to 5:45 p.m., and Tuesdays and Thursdays from 11 to 11:45 a.m. A new 35-40 minute total Weight Training Circuit program is now available by appointment Monday through Friday. at 3:45 p.m. and 4:45 p.m. Every class is designed to challenge all levels of fitness with the instruction to work at one's own pace.

The Health Education Programs curriculum offers Back Injury Prevention, a 1 1/2 hour class; a 12-day Smoking Cessation class and a ten-week program called LEARN, which encompasses the application of skills and knowledge with regard to Lifestyle, Exercise, Attitude, Relationships and Nutrition. All exercise classes are available to retirees and dependents at no additional cost however, a nominal fee is assessed for material necessary for Health Education classes. For session dates, class times and more details, please contact the Fitness Center personnel. (Back Injury Prevention and Smoking Cessation classes are available to on-site contractors).

For more information, contact Teri Hassell at 4-3337, Bill Tease at 4-7571 or Pat Mirandy at 4-7570 between 7 a.m. and 6 p.m. Monday through Friday.

## Employee Ads

### Miscellaneous

- ★ Kenwood DP-M5550 CD player, 6-cartridge plus single with remote, \$120. 536-6228
- ★ AKC Shih-Tzu puppies, brindle/white, \$200/\$250, AKC Poodle puppies, apricot, \$200/\$250. 753-2278
- ★ Weight bench with squat rack and 150 lbs. metal weight, \$100; Weedeater XR-50 trimmer, \$40. 851-6014
- ★ Antique oak desk with matching chair. 837-0786
- ★ Barrel back upholstered chair, light tan color, \$150 o.b.o. satellite dish and electronics. 539-8899
- ★ Coleman, 4-ton Horizon II air conditioning unit with "A" frame included, approximately nine years old, \$500. 880-6335
- ★ Engagement ring, 1/4 carat solitaire with surrounding diamonds, appraisal papers, \$1,300. 306-0194
- ★ Beanie Babies; current, new and Disney, Garcia, Magic and more. Leave message at 881-7000
- ★ Super Nintendo with two sets of controllers and includes four games, \$100 o.b.o. 233-1252
- ★ Rattan set, 48 inch glass top table, four chairs with cushions, love seat, \$220. 883-1804
- ★ DP Gympac 6200 home gym, 40 Kg. weights, \$100. 852-3133
- ★ Footjoy lite spikes, 32, 25 cents each or \$7.50 for all. 881-1249
- ★ MS Office 97, Pro with bookshelf basic, full version, on CD-Rom, \$175. 725-4411
- ★ ICOM micro 2AT handi-talkie, with 2M amplifier, spare batteries and DC converter, \$185. 971-0571
- ★ Large lounge chair, upholstered, wood arms and legs with embossed leather sides, \$50. 883-5543
- ★ Stereo in glass case, CD player, dual cassette, 100-watt speakers. 837-9717
- ★ Barrel table with four swivel chairs, formica table top, 5 ft. diameter, \$600. 882-1067
- ★ Pre-owned plus-sized women's clothes, sizes 24 to 32, dresses, suits, short sets, designer pieces. 895-0485
- ★ 1989 Wellcraft ski boat, 19 ft., Bowrider, 165 HP, low hours, drydock stored, \$5,700. 539-0994
- ★ Boat, Gaspar Runabout, 19 ft., walkthru windshield, v8 Mercruiser engine, trailer, equipment included, \$1,800. 851-6661
- ★ Gray berber carpet, 6X9, \$35; three border rugs, \$400 to \$600. 881-0557
- ★ Beanie Babies, \$9; large collection of Barbies, various prices, leave message at 464-0449
- ★ 1991 Dynasty Elan, 17ft., trailer, suncover, skis, accessories, dry storage, \$7,500. 881-6297

### Vehicles

- ★ 1992 Buick Park Avenue, gray, leather seats, \$11,225. 539-7281
- ★ 1984 Corvette, 62K miles, air, fully-equipped. \$9,500. 232-6943
- ★ 1992 Ford E150, full-size custom van, brown, 351 engine, captain chairs, rear bench 69K miles, \$16,000. 830-4846
- ★ 22 ft Winnebago MH, new diesel, refrigerator, interior, CD; microwave, generator, TV, VCR, awning \$12,900. 461-8721
- ★ 1989 Plymouth Voyager, 160K, trailer hitch, \$2,500 o.b.o. 837-2223
- ★ 1995 Chevrolet Lumina LS, blue, 36K miles, PW, PS, cruise, am/fm cassette, \$12,500. 751-2131
- ★ 1994 Ford Ranger supercab, air, stereo, cassette, custom camper shell, 38K miles, \$9,950. 881-6297
- ★ 1985 Honda Accord 3-door, 5-speed, a/c, 200K miles \$750 o.b.o. 233-4892
- ★ 1995 Chevrolet Lumina LS, 4-door, 37K miles, power, ABS, alloys, cruise, stereo cassette, remote entry, \$12,500. 751-2131
- ★ Renovated Dodge motorhome, new tires, motor, transmission, roof, interior, 46K actual miles, \$6,000. 881-6916
- ★ 1988 Ford Bronco II, 122K miles, \$3,200/464-5008.

### Wanted

- ★ Hay mowed, 15 acres, Harvest. 233-4892
- ★ 1990-91 CRX SI, black, 5-speed, in good condition. 350-1011

### Lost

- ★ Pearl bracelet possibly in Building 4200, 4201 or 4202 areas. If found, call 4-9188. Will identify.

## Center Announcements

- ✦ **MARS** — The Mars Golf Club championship tournament will be held August 2 at Point Mallard. The tournament will be a one day event and the first tee time begins at 7:30 a.m. Entry deadline is July 25. For more information contact Robert Rutherford at 4-8117.
- ✦ **Toastmasters** — Redstone Toastmasters International will meet every Tuesday at 6 p.m. in Morrison's Cafeteria in Madison Square Mall. For more information call 461-0476.
- ✦ **Fishing Club** — The results of the MARS Fishing Club tournament at Browns Creek (Guntersville Lake) on July 12 are as follows: 1st place - Ross Evans and Deon Smith; 2nd place - Ken Anthony and Alex Rawleigh; 3rd place - John Harbison and Mike Vanhooser.

The biggest fish honors went to Ken Anthony. The next tournament is a night tournament at Wilson Lake on Aug. 16. For more information call Don McQueen at 4-9073 or Ross Evans at 5-2305

- ✦ **MESA** — The July meeting of the Marshall Engineers and Scientist s Association (MESA), will be held Thursday at 11:30 a.m. in the MESA office, Building 4471, Room C105. Contact Wesley Darbro at 4-7501 for more information.
- ✦ **Blue Cross/Blue Shield** — The federal representative from Blue Cross/Blue Shield will be at the Center July 30 from 9 to 11 a.m. in Building 4202, Room B-108 to assist employees with questions.
- ✦ **Luau Dinner Dance** — Tickets for the Aug. 9 Luau Dance are now on sale by the MARS Ballroom Dance Club. The event will be held in the VBC West Hall with music by the Directors Band. Attire is casual. Social begins at 6:30 p.m., followed by a buffet dinner at 7. Tickets are \$18 per person with a \$3 discount for members. Tickets may be purchased from Tamara Landers (4-6818), Pat Sage (4-5427), Ed Ogozalek (837-1486), and Bob Williams (4-3998). Call Woody Bambara (650-0200) for a table for eight.
- ✦ **Stop Abuse** — Aware of waste, fraud or abuse? Telephone the Marshall Office of Inspector General at 4-9188 or send complaints to Mail Stop M-DI. Confidentiality will be maintained.
- ✦ **Mars Tennis Club** — The Mars Tennis Club Hi-Lo tournament was held June 7. Winners were Bernice Bowling/PA01 and Bob Middleton/retired; runners-up were Elizabeth Woeber/AI41 and Joe Cremin/retired. The Open Mixed Doubles Tournament was held June 28. Winners in the "A" division were Donna Sellers/EO39 and George Noel/retired; runners-up were Jack Beasley /CR10 and Carol Wright/guest. In the "B" division were Tom Sutherland/EB23 and Linda Fisher/guest; runners-up were Dave Carstens/EM01 and Sandra Lyons/guest.
- ✦ **Surplus Sale** — A Redstone Arsenal local sealed bid sale will be held July 28 at 7405 Warehouse Road. Property may be inspected July 23-25 from 8 a.m. to 3p.m. Contact Elizabeth Couch (842-9474) or Donna Davis (842-2570).
- ✦ **Archery Club** — The MARS Archery Club has completed half of the planned shoots for the summer shooting league season. Shooting will continue on Tuesday afternoons until October. Marshall employees and retirees and contractors are invited to join. For more information contact Reginald Cobb (4-7021) or Robert Cooper (4-1299).

# MARSHALL STAR

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